ABSTRACT OF THE DISCLOSURE:

A nonvolatile magnetic memory device having a nonvolatile magnetic memory array comprising write-in word line(s), bit lines and tunnel magnetoresistance devices, wherein when data is written into the tunnel magnetoresistance device, a current $I(m)_{RWL}$ is passed through the m-th-place write-in word line, a current $g(0) \cdot I(n)_{BL}$ is passed through the n-th-place bit line, and at the same time, a current $g(k) \cdot I(n)_{BL}$ is passed through the q-th-place bit line ($q = n + k$, k is ± 1, ± 2, ..., and the total number of the lines is K), and a spatial FIR filter assuming magnetic fields, which are supposed to be formed in the n-th-place bit line and the bit lines that are K in number by the current $I(n)_{BL}$, to be discrete pulse response and assuming the coefficients g(0) and g(k) to be tap-gains is constituted of the n-th-place bit line and the bit lines that are K in number.